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ANOPHTHALMIA IN AN UPLAND CHORUS FROG (PSEUDACRIS FERIARUM FERIARUM) FROM SOUTHEASTERN VIRGINIA—Abnormalities and malformations of eyes and limbs are well documented in North American frogs in the genus Rana (e.g., Ouellet et al., 1997; Meteyer, 2000; Meteyer et al., 2000) but they are less well known for other families. Banta (1968) described a case of anophthalmia

in the Eastern Gray Treefrog (Hyla versicolor) that occurred during metamorphosis. Smith & Powell (1983) reported an adult Acris crepitans with a missing eye from Missouri. Two Northern Green Frogs (Rana clamitans melanota), one each from the City of Arlington and Fairfax County in Virginia, both of which were missing an eye, are listed in the North American Reporting Center for Amphibian Malformations website (http://frogweb.nbii.gov/ narcam/). This database includes several observations of anophthalmia and other eve deformities in frogs and salamanders (e.g., Ambystoma maculatum, Bufo americanus, Rana catesbeiana, R. clamitans), but details allowing assessment of whether they were congenital or derived from injuries are unavailable.

On 3 March 2002, we found an adult male *P. feriarum* (27 mm SVL) missing its left eye and orbit in a mixed hardwood (*Acer rubrum*, *Liquidambar styraciflua*, *Ilex opaca*) swamp in the riparian zone of Beaverdam Creek, Colonial National Historical Park, 3.5 km S Yorktown, York County, Virginia (Fig. 1). This was the only malformed frog found among 17 *P. feriarum*, two *Pseudacris crucifer*, two *Rana sphenocephala*, and one *Rana palustris* captured at this location. Normally pigmented and patterned skin entirely covered the orbit, and the frog did not appear injured, scarred, or unusual except for the missing eye. Thus, the abnormality appears to be congenital. This is the first report of anophthalmia for *Pseudacris feriarum*.

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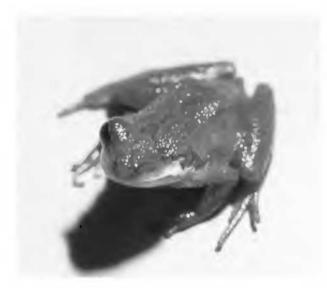


Fig. 1. Adult male *Pseudacris feriarum* with left-side anophthalmia from York County, Virginia.

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BILATERAL ECTROMELIA IN A NORTHERN CRICKET FROG (ACRIS CREPITANS CREPITANS) METAMORPH FROM VIRGINIA—Most malformations in frogs have been reported for metamorphs or juveniles (e.g., Ouellet et al., 1997; Meteyer, 2000; Meteyer et al., 2000). Deformities in tadpoles are occasionally reported based on experimental work or from contaminated environments (Rowe et al., 1998). In the genus Acris, polydactyly in A. gryllus was reported from Florida by Christman (1970) and malformations consisting of a missing eye and subcutaneous bloating derived from a herniated small intestine were described for A. c. blanchardi in Missouri by Smith & Powell (1983). Gray (2001) noted that 39 of 9,987 recently metamorphosed *A. c. blanchardi* froglets from Illinois had missing limbs and digits and deformed or extra limbs, digits, or mouthparts. The North American Reporting Center for Amphibian Malformations website (http://frogweb.nbii.gov/narcam/) reports four species of ranids and an American toad (*Bufo americanus*) with multiple legs but none with ectromelia (missing limbs). No reports concern tadpoles. Here we report the first documented observation of ectromelia in a metamorphic *A. crepitans crepitans*.

On 29 July 2003, we captured a 30 mm total length *Acris c. crepitans* tadpole in a tire rut pool in a clearcut on Fort Lee (U.S. Army), Prince George County, Virginia (UTM 4126859 N, 18s 293184 E, NAD 83). Both of the anterior limbs were fully formed with complete development of both hands and digits. Both rear limbs were absent, with only small, fleshy stumps at the point of emergence from the body (Fig. 1). There was no evidence of predation or injury. The dark areas on the stumps are melanophores; there is no bone tissue exposed. We interpret this observation as an instance of congenital bilateral ectromelia. Twenty other *A. crepitans* tadpoles with rear legs only were also captured at this site, as were two metamorphs with



Fig. 1. Acris c. crepitans tadpole from Virginia with bilateral ectromelia.